CORRELATION OF PRESSURE RISE AND EXPERIMENTAL BACKGROUNDS AT RHIC IN RUN04

A. Drees*, U. Iriso-Ariz and W. Fischer, Brookhaven National Laboratory, Upton, NY 11973, USA

Abstract

At RHIC, high intensity heavy ion beams, as achieved in the FY 2004 run, cause pressure rises in the experimental areas. Electron clouds could be responsible for this rise. However, the evolution of the pressure and therefore the background, varies significantly between the different Interaction Regions. At this point, the sustainable background levels limit the achievable luminosity for RHIC. In addition, the bad background conditions degrade the data quality for the experiments and increase the number of false triggers. Experimental data will be presented and compared to expectations.

* drees@bnl.gov